

REMARKS

The specification and claims have been carefully reviewed in the light of the Office Action with a notification date of May 18, 2010.

Claim 1 has been amended to incorporate the subject matter of claims 3, 5 and 6, which have been canceled, without prejudice.

Claim 8 has been amended to depend on claim 1 and to incorporate the subject matter of claim 9, which have been canceled, without prejudice. Claim 8 has also been amended to remove reference to "spread" in an effort to clarify the difference in resulting product produced by Farrer compared with that of the present invention.

Claims 10 and 11 have been amended to depend on claim 8.

Care has been taken not to introduce any new matter.

The Present Invention

The process of the present invention is directed to making oil-in-water emulsions of the mayonnaise type, containing insoluble citrus fibers and a dairy base selected from the group consisting of yoghurt, crème fraîche, sour cream, cream, and mixtures, which products contain acidulant for various purposes such as ambient shelf stability.

Double patenting

A terminal disclaimer is provided with this amendment, to overcome the provisional rejection of Claims 1-11 on the ground of nonstatutory obviousness-type double patenting over co-pending Application 10/576,704. This co-pending application is also not prior art for purposes of 35 USC 102 or 103 because it has a filing date of May 17, 2007, whereas the present application has an effective filing date of October 23, 2003 by way of claiming priority from an application filed on that date that resulted in US 7,510,737, (as well as from EP04077323.6 filed August 17, 2004).

In addition to nonstatutory obviousness-type double patenting, claims 1-7 were rejected under 35 USC 103(a) as being unpatentable over Bialek (US 7,510,737). Bialek is one of the two applications of which the present application claims the priority date of October 24, 2003 (as well as EP04077323.6 filed August 17, 2004). Hence, Bialek cannot be cited as prior art against the present application. 35 USC 103(c) does not work either, because the present application has an effective priority date of October 24, 2003. However, Applicants have included a Terminal Disclaimer for Bialek in the effort to expedite the prosecution of this case to issuance without further delay.

Obviousness

Claims 1-11 were rejected under 35 USC 103(a) as being unpatentable over Farrer (WO 03/053149) in view of Han (US 6,416,797). Applicants respectfully traverse.

Farrer discloses a method for the preparation of a spreadable oil and water containing emulsion comprising mixing oil, water, dairy protein, citric fiber and emulsifier, and recovering the emulsion. In addition to the deficiencies as to oil droplet size mentioned in the Office Action, among others, the subject matter of present claim 1 differs from the teachings of Farrer in that Farrer does neither disclose a process involving homogenizing at least twice at pressures from 35.0 to 650.0 bar at a temperature from 15 °C to 70 °C, nor does it mention emulsions comprising a dairy base selected from yoghurt, crème fraiche, sour cream, cream and mixtures thereof.

Han describes a process for making cream cheese, wherein milk protein concentrate, whey protein concentrate, butter fat, water and milk are mixed, followed by one (Ex. 1) or two (Ex. 2) two-stage homogenization steps at 5000 (344 bar) and 500 (34 bar) psi.

The present invention provides a method for making an edible emulsion comprising insoluble citrus fibers that can advantageously be used to prepare a reduced fat food product that has the texture and sensorial properties associated with a full fat product, while additionally having the health benefits associated with food products containing fiber (see pg. 2, lines 1-7).

In the present method a coarse emulsion comprising oil, water, dairy base selected from the group consisting of yoghurt, crème fraiche, sour cream, cream and mixtures thereof, and insoluble fruit fiber is homogenized in a homogenizer and the homogenizer is pressurized from 35.0 to 650.0 bar and at a temperature from 15 °C to 70 °C whereby the homogenization is carried out in two or more separate homogenization steps, resulting in an edible emulsion with a smooth texture. Unexpectedly, the edible emulsion prepared using the claimed method enables the preparation of food products that maintain viscosities that are consistent with those of full fat products, even when < 1.0% by weight of the food product thickening gums and/or stabilizers are employed (see page 10, lines 1-4).

One skilled in the art at the time of the invention, seeking to provide a reduced fat emulsion comprising a dairy base, would not have arrived at the subject matter of the present claims starting from either Farrer and/or Han. Farrer relates to a base composition that can be used in the preparation of kitchen products and that may optionally comprise a citric cell wall material (paragraph starting on page 13, line 30). Han aims to provide a process for preparing cream cheese (based on full-fat milk) in which whey nutrients are not lost in the process; as such, Han is by no means concerned with fiber-enriched, reduced-fat food products.

In addition, homogenization is taught by Han for different reasons:

"The importance of homogenization is that it is used in the process of the current invention to create and maintain emulsions from the various liquids of the process and to maintain the various [inoculated dairy] liquids in an emulsified state rather than a curd state" (column 10, lines 25-30); "to break up any curd that may have formed"(claim 1).

Furthermore, even if a person of ordinary skill in the art, at the time the invention was made, had tried to combine the teachings of Farrer and Han, it is totally unclear how this would have led to a process wherein a coarse emulsion comprising oil, water, dairy base selected from the group consisting of yoghurt, creme fraiche, sour cream, cream, and mixtures thereof, insoluble citrus fruit fiber and emulsifier is homogenized in a homogenizer and the homogenizer is pressured from about 35.0 to about 650.0 bar and at a temperature from about 15°C to about 70°C whereby the homogenization is carried out in two or more separate homogenization steps.

The present claims provide a unique emulsion having a unique oil particle size distribution and viscosity that are not disclosed or suggested by the combination of Farrer and Han. Farrer makes a dry product and Han makes a cream cheese substitute that is even harder than regular cream cheese. Farrer teaches away from the present invention by providing a dry composition that can be formed into an emulsion by manual operation within a short time. See p. 3, lines 1-14. Certainly, Farrer leads away from the method where a homogenization step is applied for producing a smooth emulsion. Han are silent regarding an edible emulsion comprising oil, water, a viscosity-building emulsifier, insoluble fruit fibers and thickener such as the edible emulsion according to the present invention. The combination of the dry product of Farrer and the cream cheese of Han do not lead to the composition, product, or method of the present invention. Accordingly, the combination of the references would not lead one skilled in the art to the unique emulsion and method of the present invention.

Claims 1-11 were further rejected under 35 USC 103(a) as being unpatentable over Vom Dorp (EP 0949295) as further evidenced by Francis and in view of Fischer. Applicants respectfully traverse.

Vom Dorp discloses a process for preparing yoghurt, comprising blending pasteurized milk, sucrose, gelatin replacer, modified starch, skimmed milk, preheating to 50-52°C and homogenization at 175-200 bar, wherein said gelatine replacer comprises wheat fibers and modified starch.

The examiner asserts that the claims of the present invention differ from Vom Dorp in recitation of the use of two homogenization steps, but that homogenization of milk products is typically carried out in a two-stage process, whereby Francis is cited to support this assumption. The examiner then goes on to argue that Vom Dorp teaches the addition of fruit preparation, while Fischer teaches that insoluble fruit fiber may be used as a thickening agent in food products. Hence, according to the examiner, it would have been obvious to substitute the fruit fiber of Fischer for the wheat fiber of Vom Dorp and come up with the claimed invention.

Applicants respectfully traverse. Firstly, it is not understood why one of ordinary skill in the art, at the time of the invention, seeking to provide an edible emulsion comprising insoluble fibers that can advantageously be used to prepare a reduced fat food product as explained above would consider consulting a document relating to gelatine replacement, let alone reading a yoghurt recipe. In any case, Vom Dorp would only suggest a combination of wheat fiber gel and modified starch. Furthermore, it is not seen how such one of ordinary skill in the art would learn from Francis to carry out homogenization from 35.0 to 650.0 bar and at a temperature from 15 °C to 70 °C in two or more separate homogenization steps to obtain food products that maintain viscosities that are consistent with those of full fat products. If anything, Francis is solely concerned with general aspects of homogenization and merely suggests that some products (not specified) "might require more than one pass through the homogenizer or the use of a two-stage homogenizing valve". Moreover, it would appear that only with the benefit of the disclosure of the present application, would a person of ordinary skill in the art have combined the teachings of the wheat fiber gel of Vom Dorp with fruit fiber of Fischer.

CONCLUSION

Reconsideration of the rejection is respectfully requested in view of the above claim amendments and remarks.

It is respectfully requested that the application be allowed to issue.

If a further telephone conversation would be of assistance, Applicant's undersigned attorney invites the Examiner to telephone at the number provided.

Respectfully submitted,

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